



**Seventh framework programme
Food, Agriculture and Fisheries, and Biotechnology**

Specific International Co-operation Actions
Small or medium scale focused research project



Sweet Sorghum an alternative energy Crop

Grant Agreement n° 227422

Deliverable 1.9:

*About ten new elite B-lines converted
into A-lines available*

Composition of the consortium

CIRAD
ICRISAT
EMBRAPA
KWS
IFEU
UniBO
UCSC
ARC-GCI
UANL
WIP



Results from Germany and Italy (KWS) :

Best selected nine maintainer-lines based on the information from Germany and Italy are shown in Table 1. The Selected females with good performance for both environments have reached BC3 up to BC4-level.

Table 1: Performance of maintainer lines in comparison to the check rows (ID 1-13) based on the information from Germany and Italy.

ID	PROG	IDT	INB_CODE	GENOTYPE	DER	F_M	PLASMA	GENER	Color of seed	GIMP	Note
1	ZM13-CMS-S	Z3N-8001	1Z2245A1	1Z2245A1 x 1Z2245E	1Z2245A1 x 1		A1	BC6	white	3	
2	ZM13-CMS-S	ZM2-07111	3Z0040A1	3Z10022A1-2113121	1Z1064A1 x (A1	BC5	white	2	
3	ZM13-CMS-S	ZM2-08019	3Z2220A1	3Z2220A1	3Z10060-BC1		A1	BC6	red	2,5	
4	ZM13-CMS-S	ZM2-08011	1Z2093A1	1Z10058-BC1111111	1Z10058-BC1		A1	BC10	white	3	
5	ZM13-CMS-S	ZC2-12068	1Z1064A1	1Z1064A1	1Z1064A1		A1	BC10	white	2	
6	ZM13-CMS-S	Z3Y-6504	1Z1602A1	1Z1602A1	1Z1602A1 x 1		A1	BC11	e	1	
7	ZM13-CMS-S	Z2Y-5506	341.602	MMR341x602	341.602		A1	F1	e	1	
8	ZM13-CMS-S	Z2N-7025	MMR341	MMR341	MMR341		A1	BC10	white	3	
9	ZM13-CMS-S	Z0N-7037	MMR 339	MMR 339	MMR 339		A1	BC10	red	4	
10	ZM13-CMS-S	Z3Y-6502	LP3	LP3	LP3xLP4		A1	BC10	white	2	
11	ZM13-CMS-S	ZM2-08023	LP 17	LP17	LP17		A1	BC10	red	3	
12	ZM13-CMS-S	ZM2-07025	LP62	LP62	LP62		A1	BC10	red	3	
13	ZM13-CMS-S	Z2N-7007	LP64	LP 64	LP 64		A1	BC10	red	2,5	
30	ZM13-CMS-S	ZM2-42067/002		E606-**431211.2	E606	P	N	S5	red	1	
38	ZM13-CMS-S	ZM2-42079/001		E606-**691111.1	E606	P	N	S5	white	1	top
44	ZM13-CMS-S	ZM2-42107/001		E613-**161111.1	E613	P	N	S5	red	2	
54	ZM13-CMS-S	ZM2-42149/001		E614-**271111.1	E614	P	N	S5	white	2	
58	ZM13-CMS-S	ZM2-42157/001		E614-**321111.1	E614	P	N	S5	white	1	
62	ZM13-CMS-S	ZM2-42160/002		E614-**341111.2	E614	P	N	S5	white	1	top
64	ZM13-CMS-S	ZM2-42163/001		E614-**371111.1	E614	P	N	S5	white	2	
68	ZM13-CMS-S	ZM2-42171/002		E614-**501111.2	E614	P	N	S5	white	2	
70	ZM13-CMS-S	ZM2-42175/001		E614-**601111.1	E614	P	N	S5	white	2,5	

EV= early vigor (1= fast development ; 9= slow development); GIMP=general impression of line (1=very good, 9=very bad)

Selection results from France (Cirad)

24 BC1 and 28 BC4 early A/B lines with adaptive and yield traits to be used as female parents of biomass hybrids for temperate conditions are available from Cirad.

Crosses were made by Cirad using Cirad B parents. From the F2 generation, part of the lines was developed through pedigree selection by Cirad in France and part was selected in Germany by KWS. The conversion of F4 or F5 new B lines into A1 cms was alternately managed by Cirad and KWS. The last cycle was achieved by Cirad in Montpellier during the 2013 summer season.